

surfaces at different radial distances from said axis receive substantially the same amount of said reactant gas per unit time per unit area.

21. A method as claimed in claim 20 wherein said introducing step includes mixing at least some of said reactant gas with said carrier gas so that gas flowing toward radially outward portions of said one or more surfaces has a higher concentration of said reactant gas than gas flowing toward radially inward portions of said one or more surfaces.

22. A method as claimed in claim 21 wherein said introducing step includes discharging said gases into said chamber through a plurality of inlets disposed at different radial distances from said axis.

23. A method as claimed in claim 22 wherein mixing step is performed so that as to mix the carrier gas with the reactant gas prior to discharge from at least some of said inlets, and so that streams having different concentrations of said carrier gas will be discharged from different ones of said inlets.

24. A method as claimed in claim 20 further comprising the step of maintaining reaction conditions in said chamber such that said reactant gas reacts at said substrate to grow a layer including a constituent derived from said reactant gas epitaxially on said one or more surfaces.

25. A method as claimed in claim 24 wherein said reactant gas includes a metal alkyl.

26. A method as claimed in claim 24 wherein said carrier gas includes nitrogen.